Task 1:

Your task is to implement a small component that enables manually removing attendance information for a student.

Done : https://github.com/mehuloswal/Attendance-App

Design Writeup:

To address the challenge of managing attendance removal and recovery, we'll implement a system that supports the following features:

1. Removal of Student Attendance:
    a. We'll provide course staff with an interface to mark attendance records as removed. Instead of deleting the records, we'll update a field in the database, setting the flag *isDeleted* to true.
    b. Rows with this flag set to true will not be displayed in the user interface.
    c. Additionally, course staff can manage attendance by rescanning the QR code or changing the *isDeleted* flag to false and removing the *deletionExplanation*.
2. Ability to Recover Student Attendance:
    a. Since we're not hard-deleting attendance records, we can easily provide a mechanism to recover them. We'll keep track of the removal status in the database, allowing us to revert the removal if needed.
3. Ability to Explain Attendance Progression:
    a. We'll include a field in the database schema to explain why the attendance was removed.
    b. Additionally, we'll provide functionality to display the history of attendance for a particular student, retrieving the history based on the student's *UIN* and *ClassID*.
4. Assure backward compatibility of the system as you create this design:
    a. To maintain backward compatibility, we'll add two new fields (*isDeleted* and *deletionExplanation*) to the MongoDB collection to track removals.
    b. The existing APIs will remain unchanged, ensuring that the system continues to function as expected.
    c. The modular structure of the codebase allows us to seamlessly integrate these new features without disrupting existing functionality.

Sample Document:

```
_id: ObjectId('661a2e885927fcd5fe69cd5e')
uin : "123456789"
classId : "04202024"
takenBy : "John Doe"
shortcode : "101"
date : 2024-04-20T09:00:00.000+00:00
isDeleted : true
__v : 0
deletionExplanation : "Test2 ABC"
```